CADPro Help

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Radio Frequency Energy Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Reorient or coil cables.
- If necessary, consult the dealer or an experienced radio/television technician for additional suggestions.

Important: Any cables the user adds to the device must be shielded to be in compliance with the FCC standards. Any unauthorized modification to this device could result in the revocation of the end user's authority to operate this device.

Cordless pen, cursor, or mouse

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Canada

Industry Canada Class B emission compliance statement.

This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de classe B est conforme à la norme NMB-003 du Canada.

Japan

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

European Union – emission directive

This product is in conformity with the protection requirements of EU Council Directive 89/366/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to CISPR 22 / European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

CE Certification

Declaration of conformity according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name:	GTCO CalComp, Inc.
Manufacturer's Address:	14555 N. 82nd Street
	Scottsdale, Arizona 85260
	U.S.A.

declares, that the product

Product Name:	CADPro
Model Numbers:	36090
Product Options:	All

conforms to the following product specifications:

Safety:	Not applicable to any standard
EMC:	CISPR22:1985/EN 55022:1988–Class B
	EN 50082-1:1992

       IEC 801-2:1991–4kV CD, 8kV AD, Criterion B

       IEC 801-3:1984–3V/m, Criterion A

       IEC 801-4:1988–1kV power lines, .5kV data lines, Criterion B

Supplementary Information

The product herewith complies with the requirements of the EMC Directive 89/336/EEC.

Scottsdale, Arizona, U.S.A.	6-18-2000	Dana Doubrava
Location	Date	Engineering Manager

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Introduction

The **CADPro** is a high performance, low cost digitizer tablet well suited for CAD, mapping, and GIS applications as well as drawing, tracing, and presentation graphics. This top-of-the-line tablet offers the highest resolution and accuracy available on the market today, along with easy-to-use software and programmable function keys.

CADPro combines all the advantages of a mouse and a digitizer to eliminate multiple input devices and provide you with a sleek, simplified desktop.

Topics discussed in this section:

System requirements and compatibility

CADPro overview

System requirements and compatibility

This version of the **CADPro** is equipped with an RS-232 serial interface, or a USB interface and is compatible with PCs and USB-equipped Apple computers.

The PC software is compatible with Windows (WinTAB compliant), ADI, and Microsoft mouse. After installing the PC software, CADPro will work with Windows applications that support a digitizer or a Microsoft mouse. You must be using Windows 95 or later.

PC or compatible minimum requirements

- IBM PC compatible computer
- Minimum processor and RAM requirements determined by operating system
- 1 spare serial port, or USB port
- Hard drive or network server drive with 10 MB extra space available
- Microsoft Windows 95/ 98/NT/2000 (USB requires 98, or 2000)
- CD-ROM drive

Apple minimum requirements

- USB-enabled Mac
- Minimum processor and RAM requirements determined by operating system
- Hard drive with 5 MB extra space available
- OS 9.x only
- CD-ROM drive

CADPro overview

The CADPro tablet consists of:

- Drawing area
- Indicator light
- Pointing tools

Drawing area

The drawing area is the rectangular surface area on the tablet located below the label (see figure). This is where all your work is performed. The tablet has a clear plastic cover over the drawing area that can be used to secure artwork or templates.
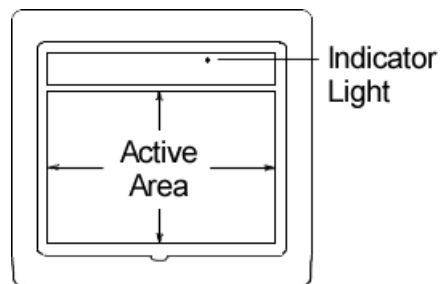
Indicator light

The indicator light displays the status of power and proximity of the pointing tool. If the light is blinking, the tablet has power. The light goes out if a pointing tool is inside the drawing area of the tablet.

Pointing tools

CADPro comes with a 16-button cursor (shown).

A 4-button cursor, 5-button mouse and a click-tip or pressure-tip pen are also available.

Each pointing tool goes into a battery-saving *sleep mode* when no button has been pressed for a while. To reactivate the tool, press any of its buttons.
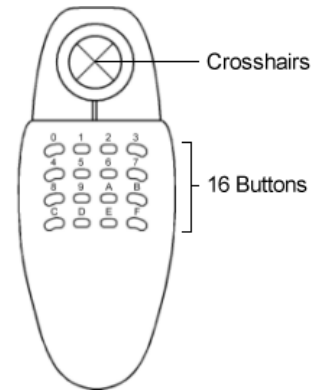
Cursors

The cursor is similar in appearance to a mouse, except that it has an attached lens with crosshairs for highly accurate detail work. The cursor buttons are programmable to execute frequently used commands.

Pens

The pen is similar in appearance to a ball-point pen. It has a button built into the tip, plus two programmable side buttons on the barrel. The two types of pens are identified by a colored ring on the barrel:

- Click-tip pen – Light blue ring
- Pressure tip pen – Black ring

Getting Started

Getting started with your **CADPro** tablet is fast and easy.

Topics discussed in this section:

Unpacking the tablet

Installing the tablet

Installing the software

Unpacking the tablet

Before you begin installation, verify that you have received everything you ordered. You should have received:

- ☐ CADPro tablet
- ☐ 16-button cursor
- ☐ Software CD with tablet drivers
- ☐ Serial adapter
- ☐ USB adapter
- ☐ Warranty registration card with Quick Start instructions
- ☐ Other pointing tools (optional)
- ☐ Pen holder (if you ordered a pen pointing tool)

If any package contents are missing, call GTCO CalComp Customer Assistance at 480-443-2214 in the U.S. or Canada. Outside the U.S. or Canada, please call your local GTCO CalComp office or Summagraphics reseller.

Installing the tablet

CADPro was designed for maximum compatibility across multiple platforms. Although connecting by serial is possible, if your computer has Windows 98, NT, 2000, Me, or XP installed and has working USB ports, it is recommended that you use the USB connection to operate your tablet. If you do not have working USB ports or are running Windows 95 version A or B as your operating system, you must use the serial connection method. If you have a Macintosh computer running Mac OS 9.x, USB is your only option. Earlier versions of the Mac OS are not supported.

Note: PCI Macintosh computers without USB can be made to work with this tablet using a PCI USB card that complies with the Open Host Controller Interface specification and Mac OS 9.x.

Once a method of connection has been decided on, proceed to the appropriate section below for installation instructions:

Serial Connection for Windows 9x/NT/2000/XP/Me

1   Connect the **Serial Adapter** to the tablet's cable.

2   With the *computer turned off*, connect the other end of the Serial Adapter to a free COMM port on your computer. Now turn the computer on.

3   Your computer will detect the presence of the tablet and prompt you to install the driver CD.

4   Insert the TabletWorks CD into your CD-ROM drive and follow the on-screen instructions.
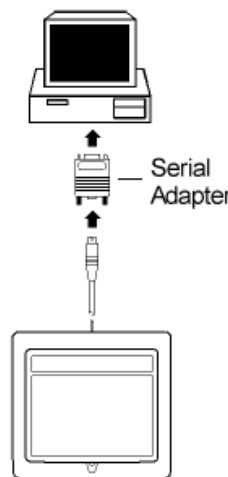
USB Connection for Windows 98, NT, 2000, Me and XP

1 Connect the **USB Adapter** to the tablet's cable.

2 Close all running applications on your computer. With the computer turned on, connect the other end of the USB Adapter to a free USB port on the computer.

3 Your computer will detect the presence of the tablet and prompt you to install the driver CD.

4 Insert the TabletWorks CD into your CD-ROM drive and follow the on-screen instructions.
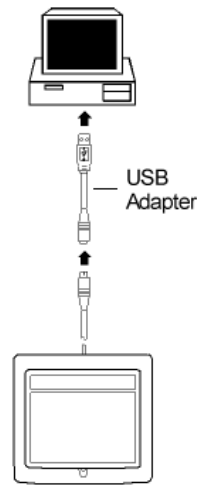
USB Connection for Macintosh

1 Connect the **USB Adapter** to the end of the tablet's cable.

2 With the *tablet disconnected*, insert the TabletWorks CD into your CD-ROM drive. The CD will open automatically. Double-click on the installer file and follow the on-screen instructions.

3 After the drivers are installed, plug in your tablet into a free USB port.

WARNING: *Never* plug the tablet into a Macintosh printer or modem port!
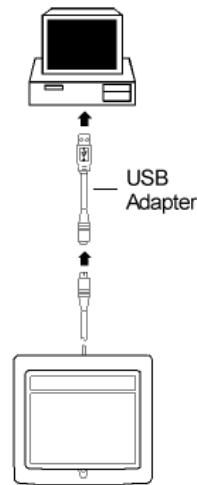
Attaching the pen holder (optional)

Pens come with a holder that you can mount to your tablet, where the cord exits the tablet, or just place anywhere that's convenient.

Installing the software

The software included with your CADPro tablet allows you to use the tablet both as a mouse and a digitizer, and to access all tablet features and capabilities through the TabletWorks control panel. Refer to TabletWorks Help for instructions on installing the software and for customizing your tablet.

Learning the Basics

You will find that using your **CADPro** tablet is as easy, or easier, than using a mouse. The CADPro cursor is more accurate than a mouse, giving you greater control over your movements.

Topics discussed in this section:

Using the pointing tools

Learning basic movements

Using the pointing tools

The pointing tool does not need to be in contact with the tablet surface in order for the tablet to sense its presence. It can be detected up to 1/2" above the drawing area. This allows you to trace through materials placed on the surface, such as a drawing or a book. Also, before using the pointing tool, be sure that sleep mode is turned off by pressing any button on the tool.

Using the cursor

When you use the cursor, the intersection point of the crosshairs on the lens identifies the point you are selecting. The crosshairs are etched on the bottom of the lens to increase accuracy. For maximum precision, look through the lens from directly over it.

Button 0 on the cursor is used as the pick, or left mouse, button. All other buttons are defined by the TabletWorks software, or through your own software application.
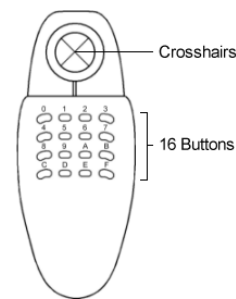
Using the mouse

The mouse works just like a normal mouse, except it has no cord to get in the way and no tracking ball to get dirty. The left and right buttons have the normal functions. The up/down scroll and side button functions are set by the TabletWorks software
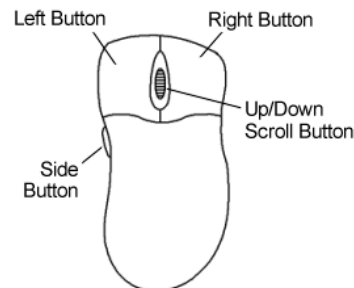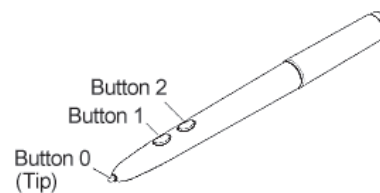
Using the pen

There are two types of pen: **click tip** and **pressure tip**. Both variations are tilt- and height-sensitive.

The pen tip is Button 0 and is used as the pick (or left mouse) button. The lower side button is Button 1 and the upper side button is Button 2.

The functions these buttons provide are defined through the TabletWorks software.

Click tip pen

The click-tip pen is primarily used for tracing and menu picking. To use the pen, press down until you feel the tip *click*.

Pressure-tip pen

With the pressure-tip pen, the pen tip can be used both as a mouse button and a pressure-sensitive button. To take advantage of the pressure feature, the software package you use must recognize pressure sensitivity. The software assigns values to the pressure levels and uses this data to vary such parameters as line width and color.

To use the pen, press down on the tip and release for a mouse pick action. Press down and hold for the pressure action. Pressure increases as you continue pressing down on the tip. To decrease the pressure, ease up on the tip.

Learning basic movements

The **CADPro** pointing tools provide all the basic movements of a mouse. The basic movements are clicking, double-clicking and dragging.

Clicking and double-clicking

Clicking is the action of making a selection. You may be selecting a key on the tablet surface, or making a selection from the monitor screen. To click, place the pointing tool, or move the screen pointer via the pointing tool, to the item to be selected. Tap the pen, or press Button 0 on the cursor. A double-click requires you to tap the pen, or press the button quickly two times while the tool remains in the same place. You can also double-click by pressing the pen or cursor button that has been defined as a *double-click* button (see TabletWorks Help).

Dragging

Dragging is the action of moving the pointing tool during a selection. To drag, click on an object, but instead of releasing the tip or button, hold it down while moving the pointing tool, or corresponding object on the screen, to the desired new location.

Customizing the Tablet

You can customize your **CADPro** tablet and pointing tool to suit your individual work requirements using TabletWorks. TabletWorks is a Windows program included with the Digitizer Software that helps you use the full capabilities of your tablet. You can map your tablet to the screen area, record your own macros and designate areas on the tablet to switch between open software applications. To learn how to use TabletWorks, please refer to TabletWorks Help.

Caring for the Tablet

Follow these precautions at all times to avoid damaging your **CADPro**:

- Avoid discharging static electricity to the tablet.
- Do not place heavy objects on the tablet surface.
- Do not use sharp objects, like compasses or knives, on the tablet surface.
- Do not use the tablet surface for any purpose other than drawing, tracing or digitizing.

Topics discussed in this section:

Cleaning the tablet

Replacing the cursor battery

Replacing the mouse battery

Replacing the pen batteries

Replacing the pen tip

Cleaning the tablet

To clean the tablet's surface, use a soft, non-abrasive cloth. Hardened dirt may be removed with a slightly dampened cloth. Do not clean pencil lines with a soft cleanser or pencil eraser. This may create an undesirable shiny spot on the tablet's surface that cannot be removed.

Warning: Do not use abrasive cleaners, acrylic or lacquer paint thinners, or cleansers with an acetone or solvent base, such as MDC or EDC, on the tablet surface. They will damage the tablet case.

Replacing the cursor battery

The cursor uses a 2/3 AA axial-leaded lithium battery (Tadiran TL-2155/P, or equivalent). Typical battery life is over five years.

To replace the battery:

1   Place the cursor face down in the palm of your hand. Use a Phillips screwdriver to remove the two screws located on the bottom of the cursor. Remove the base by lifting it up off the cover, being careful to keep the cover upside down.

2   Remove the old battery from the jacks on the circuit board. The battery is located under the circuit board. If necessary, gently lift the back of the circuit board from the base to access the battery (you may have to remove the membrane switch pad first). **Be careful not to remove the front of the circuit board or to damage the coil wires.**

3   Place the new batteries in the jacks, matching the polarity of the battery with the markings on the circuit board (match + to +).

4   Reposition the cursor base. Replace the two screws using the Phillips screwdriver.

Note: When you replace the cursor battery, the cursor will reset to the default frequency. If you changed the frequency of the cursor before replacing the battery, you will need to do so again after replacing the battery (see the Reducing Monitor Interference section in Solving Problems).

Replacing the mouse battery

The mouse uses a 2/3 AA axial-leaded lithium battery (Tadiran TL-2155/P, or equivalent). Typical battery life is over five years.

To replace the battery:

1   Place the mouse face down in the palm of your hand. Use a Phillips screwdriver to remove the screw located on the bottom of the mouse. Remove the base by lifting it up off the cover.

2   Remove the old battery from the jacks on the circuit board.

3   Place the new batteries in the jacks, matching the polarity of the battery with the markings on the circuit board (match + to +).

4   Reposition the base. Replace the screw using the Phillips screwdriver.

Note: When you replace the mouse battery, the mouse will reset to the default frequency. If you changed the frequency of the cursor before replacing the battery, you will need to do so again after replacing the battery (see the Reducing Monitor Interference section in Solving Problems).
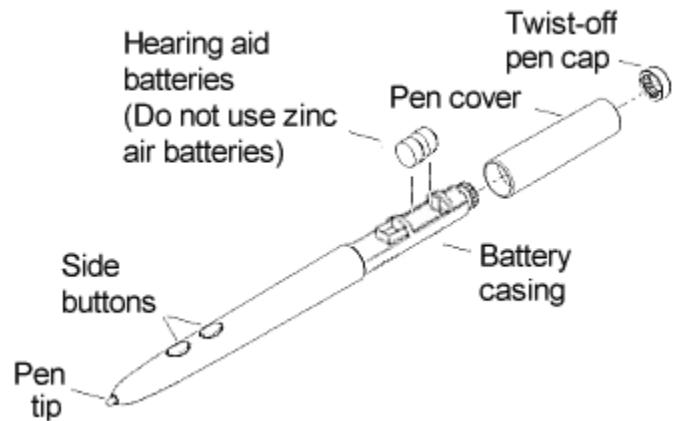
Replacing the pen batteries

The pens require two 393 silver oxide batteries. The average battery life is 750 to 1,000 hours.

Warning: Do not use ZINC AIR batteries as replacement batteries. They will corrode the electronics of the pen.

To replace the batteries:

1   Unscrew the pen cap. Hold the pen from the bottom and gently slide off the pen cover to expose the batteries.

2   Remove the old batteries by turning the pen over and gently tapping it, letting the batteries fall into your other hand.

3   Insert the new batteries as they are shown in the graphic ("+" towards pen tip).

4   Replace the pen cover, then screw the pen cap onto the pen.

Note: When you replace the pen batteries, the pen will reset to the default frequency. If you changed the frequency of the pen before replacing the batteries, you will need to do so again after replacing the batteries (see the Reducing Monitor Interference section in Solving Problems).

Replacing the pen tip

To replace the pen tip, grasp the tip and pull straight out (see figure). Insert the new tip and press until it clicks into place.
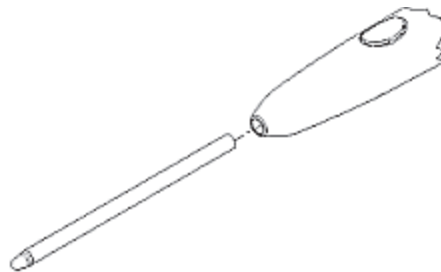
Solving Problems

We want your experience with your **CADPro** tablet to be a successful one. If you have a problem, please follow the steps below.

1   Reread CADPro Help to verify you have performed the correct steps.

2   Read the topics below to check for a solution to your problem. Review the checklists as well as the trouble-shooting chart. Keep in mind that the problem may be your computer, your display or your software, instead of the tablet.

Topics discussed in this section:

Reducing monitor interference (changing the frequency of pointing tools)

Tablet checklist

Computer checklist

Software checklist

Troubleshooting chart

Returning your tablet for repair

3   If you still have a problem, call GTCO CalComp Technical Support at 480-443-2214 (in the U.S. or Canada), or fax us at 480-948-5508. Outside the U.S. or Canada, contact your local GTCO CalComp office or dealer. Please have the following information available before you call:

■   Description of the problem

■   Name and version of software package you are using

■   Type of computer you are using

■   CADPro model number and serial number (see bottom of tablet)

■   Type of pointing tool you are using

4   Be at your computer when you call.

Reducing monitor interference

If you are experiencing monitor interference with your tablet, you can reduce the interference by changing the frequency your pointing tool uses.

Changing the frequency of the cursor

1   Place the cursor on the tablet surface.

2   Press Buttons 1 and 2 simultaneously and hold for approximately three seconds.

3   The cursor turns itself off. You will know the cursor is off when the power light on the tablet begins blinking.

4   The cursor turns on again at the new frequency. You will know the cursor is on when the power light glows steadily.

To return to the default frequency, repeat the above process. When you replace the cursor battery, the cursor is automatically reset to the default frequency.

Changing the frequency of the pen

1   Press both side buttons and the tip simultaneously and hold for approximately three seconds.

2   To return to the default frequency, repeat the above process. When you replace the pen batteries, the pen resets to the default frequency.

Changing the frequency of the mouse

Press the side, left, right and front buttons simultaneously and hold for approximately three seconds. Repeat to return to the default frequency. When you replace the mouse battery, the mouse resets to the default frequency.

Tablet checklist

☐ Serial cable to computer? Check that the cable is connected to the serial port specified in your software package.

☐ USB to computer? Check that the cable is connected to an optional USB port. Is the adapter connection tight?

☐ Does the power light blink when the pointing tool is outside the drawing area? Does it go out when the pointing tool is inside the drawing area?

☐ The power light will blink if the pointing tool has gone into sleep mode. Press any button on the tool to activate it. If the power light continues to blink and the pointing tool is in the drawing area, change the pointing tool's battery.

☐ Are all cable connections tight?

☐ Are any of the connector cables or receptacles damaged? Check for bent pins, cut insulation, and loose wires.

Computer checklist

☐ Is the computer plugged into a live outlet? Did you turn on the computer?

☐ Does the computer work with any software? Try one of your other programs. If the computer has a diagnostic diskette, use it.

☐ Is your software package installed correctly?

☐ Does the serial port work? The only way to test the port without special equipment is to reinstall something that has worked in the past and test if it still works.

☐ Have there been any recent electrical storms in your area that may have damaged your equipment?

Software checklist

Does the tablet work with some software?

If your tablet currently works with some software packages, you know that the tablet, serial port, and computer work.

☐ Call the software manufacturer. Perhaps the software package has a problem with another component of your system.

Did the software work in the past?

If the software package worked with the tablet in the past, then the problem lies with the new setup.

- ❑ Check all the connectors. Is the tablet still plugged into the same port? If yes, reset the tablet by unplugging and replugging the power supply and restart the software.

- ❑ Did you reset or power down the computer?

- ❑ During reset and power on the computer can send meaningless characters out the serial port and this can disable the tablet. Reset the tablet again.

- ❑ Have you installed any new software or hardware? Remove it from your system and see if the problem goes away.

- ❑ Did you move any cables?

- ❑ If you are using a PC, did the new software alter your AUTOEXEC.BAT file?

- ❑ Have you updated the software or its drivers?

- ❑ Are you loading another mouse driver?

- ❑ Did you reinstall the software, perhaps after a problem with your hard drive? Double check your installation procedure and the driver you selected.

- ❑ Reinstall the software from its master diskettes. The program files may have been corrupted.

Troubleshooting chart

The following table lists common CADPro problems, their causes and their solutions.

Problem	Cause	Solution
Frozen screen pointer	Pointing tool is in "sleep" mode.	Press any button on the tool.
	Tablet plugged into the wrong serial port on the computer.	Check that the serial port used is correctly identified in your software application.
	Pointing tool battery is low.	Replace the battery in the pointing tool.
	Software application set up incorrectly.	Check that the tablet is identified in your software application.
	Another device is connected to a COM port that shares the same IRQ as the tablet COM port (*i.e*., your tablet is connected to COM1 IRQ4 and your modem is connected to COM3 IRQ4).	Move one of the devices to another COM port. Contact your system manufacturer for assistance in relocating the device.
Screen pointer appears to shake or jitter	Tablet is set too close to the screen monitor.	Move the tablet farther away from the screen.
	Tablet's frequency setting may conflict with the display.	Alternate the pointing tool's frequency. (See the Reducing monitor frequency section earlier in this chapter.)
Unable to use the entire tablet surface	Software application set up incorrectly.	Check that the tablet is identified in your software application.

Returning your tablet for repair

If you think you have a defective tablet, first see all topics in this section (above) and visit our Web site at www.gtcocalcomp.com/calcompproducts/a_station/default.htm for the latest support information.

If you are still unable to properly operate your digitizer system, call Technical Support at 480-443-2214, or e-mail us at calcomp.support@gtcocalcomp.com. Technical Support will assist you in determining if your tablet is defective, and will help you obtain a Return Merchandise Authorization (RMA) number. **Important: Please do not return your product without first discussing the problem with, and receiving an RMA from, a GTCO CalComp Technical Support Specialist.**

Repackaging for shipment

Whenever you ship electronic equipment, try to ship it in its original packing materials. Because packing materials are static-charged, you should ship the cursor or any extra electronics boards inside approved anti-static plastic bags. If you are shipping the tablet or accessories to a GTCO CalComp Service Center for repair, attach a tag to the equipment with the following information:

- Model number
- Serial number
- Maintenance contract number (if applicable)
- Return Merchandise Authorization number
- Detailed description of the problem

Specifications

The following tables list **CADPro** technical specifications:

Topics discussed in this section:

Communications specifications

Design specifications

Electrical specifications

Regulatory specifications

Environmental specifications

Physical specifications

Communications specifications

The **CADPro** tablet uses asynchronous serial RS-232C transmission with RS-232C/CCITT V.24 signals, or USB V1.1. The host end of the cable is standard.

Design specifications

Feature	Description
Resolution	Up to 4,000 lpi (157.5 lpmm)
Accuracy	± .008" (cursors and mouse)
	± .010" (pens)
Proximity	0.4" (10 mm)
Jitter	± 1 lsb
Repeatability	.001"
Maximum Data Rate	>200 pps

Electrical specifications

Feature	Description
Power Source	USB interface or RS-232 port
Input Voltage	5 to 15 VDC
Current Draw	5 to 20 ma

Regulatory specifications

Feature	Description
Electromagnetic/Immunity	FCC Class B, DOC Class B, VCCI Class B, EN55024:9B, EN55022 Class B

Environmental specifications

Feature	Description
Operating Temperature	50° to 104°F (10° to 40°C)
Storage Temperature	-40° to 158°F (-40° to 70°C)
Humidity Range	0% to 95%, non-condensing
Operating Altitude	Up to 15,000 ft. (4,572m) above sea level
Storage Altitude	Up to 50,000 ft. (15,244m) above sea level

Physical specifications

Model	Active Area	Height	Outside Dimensions	Weight
36090	6 in x 9 in (152 mm x 228 mm)	0.6 in (15.2 mm)	11.9 in x 11.5 in (302 mm x 292 mm)	2.2 lb (1.0 kg)

Glossary

Accuracy

The similarity of a distance measured by the tablet with the actual distance.

ASCII

Abbreviation for American Standard Code for Information Interchange.

Baud rate

The rate of speed that data flows between a host computer and the digitizer. It is the number of bits transmitted per second. The lower the baud rate, the slower the speed.

Bit

The basic unit of information in the binary system—either 0 or 1.

Button

A switch on the cursor or pen used to input data.

Byte

A group of eight bits that acts as a single unit of information.

Coordinate pair

A pair of numbers representing a unique point on the digitizer surface, usually the distance across and up from the tablet origin.

CR

The ASCII carriage return character usually added to the end of the X,Y coordinate pairs sent by the tablet (ASCII formats).

Cursor

1) A pointing tool used to select specific points on the tablet surface. 2) A symbol displayed on the screen marking where the next action will take effect, or where the next character typed from the keyboard will appear.

Data bits

Each transmission contains 7 or 8 data bits.

Data rate

The number of coordinate pairs (X,Y) the tablet sends to the computer per second.

Default

A value, action, or setting that a computer system assumes, unless the user gives an explicit instruction to the contrary.

Drawing area

The area on the tablet surface intended for digitizing.

Format

The form in which data is sent from the tablet.

Frequency

The number of waves that pass a fixed point in one second.

Height

See Proximity.

Increment modes

This mode is used with other operating modes. Data points are sent only if the pointing tool has moved the required increment distance in either the X or Y direction and has satisfied the requirements of the operating mode. These increment distances are set separately for each axis.

Jitter

A repeatability error of short duration caused by electrical noise.

Line feed

Optional character added to the end of an output format that causes the printer to move to the next line, or causes a line to be added on the display screen.

Line mode

The tablet sends coordinate data points continuously, while the pen tip or a cursor button is depressed, and one additional point when the pen tip or cursor button is released.

LPI

Abbreviation for line per inch. English unit of measurement for resolution measuring the number of separate, distinguishable locations that may be found within the distance of one inch.

LPmm

Abbreviation for lines per millimeter. Metric unit of measurement for resolution measuring the number of separate, distinguishable locations that may be found within the distance of one millimeter.

Mouse mode

An operating mode that emulates Microsoft and Mouse Systems mouse drivers. Data constantly transmit when the cursor or pen is on the drawing are of the tablet.

Operating mode

The conditions that must be met before the tablet sends information to the computer.

Output format

The system of characters used by the tablet for outputting data.

Parity

A type of error detection where a bit is inserted into every character the digitizer transmits. The status of the parity bit confirms that the data was not altered during transmission.

Pen tilt correction

An option that allows for tilt correction in the pen.

Pen tilt data

An option that allows output of tilt data in the pen.

Point mode

The digitizer transmits one coordinate data point when a cursor button or the pen tip is depressed.

Pointing tool

The tool used to digitize; it may be either a cursor, mouse, or pen.

Pressure pen data

Data output from the pressure pen.

Prompt mode

The digitizer transmits one coordinate pair each time the computer sends a prompt character to the unit. Prompting can operate with any mode, except Mouse mode.

Proximity

The greatest distance above the drawing area that the pointing tool can be raised and still be sensed by the tablet.

RAM

Abbreviation for Random Access Memory, a specific type of memory used by the computer.

Resolution

The distance increment that the tablet outputs in lines/inch or lines/mm.

ROM

Abbreviation for Read Only Memory, a specific type of memory used by the computer.

Run mode

The digitizer transmits coordinate data points continuously, regardless of the status of the cursor buttons, or the pen tip. This mode is also called *Stream* by some manufacturers.

Serial transmission

Data transmission protocol where each bit of the data character is sent one at a time over a single circuit. This system saves on transmission circuitry, but is usually slower than parallel transmission.

Stop bits

One or two stop bits are transmitted with each data byte. They mark a completed transmission.

Track mode

The digitizer transmits coordinate data points continuously, but only while the cursor button or pen tip is depressed. This mode is also called *Switch Stream* by some manufacturers.

USB (Universal Serial Bus)

A connection port that is a standard feature on newer computers. The USB enables simpler and faster transfer of data from peripherals.

X direction

The horizontal direction across the face of the tablet.

Y direction

The vertical distance up and down the face of the tablet.

Warranty for the United States and Canada

GTCO CalComp warrants to the original end user (as evidenced by a copy of the receipt and registration card that has been returned to GTCO CalComp within thirty (30) days of purchase date) that the product will be free from defects in materials and workmanship for a period of twelve (12) months from the date of purchase by the end user. GTCO CalComp, in its sole discretion, may either repair or replace the defective product. Cursors, pens, options, cables, power supplies, upgrade and accessory items are also covered by a twelve (12) month warranty.

All warranty service will be performed at the GTCO CalComp digitizer factory. The purchaser is <u>encouraged</u> to visit the Company's web site (**www.gtcocalcomp.com**) where current driver releases as well as comprehensive technical support, troubleshooting and FAQs can be found. The purchaser is <u>required</u> to call GTCO CalComp's Technical Support and Service Department at (480) 443-2214 for CalComp and Summagraphics brand products and (410) 381-6688 for GTCO and Science Accessories brand products to receive a Returned Material Authorization (RMA) number <u>prior</u> to returning any product thought to be defective. Purchaser is responsible for freight charges to the GTCO CalComp factory under this warranty.

A nominal warranty processing and handling fee will be charged after the first 90 days of use, calculated from the date of purchase by the original owner. This payment must be made by Credit Card prior to issuance of the RMA.

This warranty only applies to equipment purchased in the United States and Canada. For equipment purchased outside of the United States and Canada contact your local dealer or distributor.

This warranty does not cover: (1) consumable parts (*i.e*., batteries, pen tips, *etc*.); (2) products with serial numbers that cannot be read; (3) products which have been operated with incompatible consumable parts or accessories. Warranty will not cover damage resulting from: (1) abnormal conditions including, but not limited to, accidents, fire, water, *etc*.; (2) neglect or misuse of the product; (3) causes external to the product including but not limited to failure or fluctuation of electrical power, air conditioning, humidity control, *etc*.; (4) maintenance, repairs, alterations, or modifications performed by any person or entity other than GTCO CalComp.

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About CADPro Help

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